

Amendments to the Claims

The following Listing of Claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (Currently Amended) A method for controlling image acquisition devices associated with a client, the method comprising ~~the steps of:~~

- ~~(a) providing a client communicating with a server using a presentation-level protocol, said client executing selecting a proxy application from a plurality of proxy applications executing on a client communicating with a server via a presentation-level protocol, the selected proxy application associated with an application executing on the server;~~
- ~~(b) receiving by said proxy application, from the server via a network, a command directed to an image-acquisition device associated with the client;~~
- ~~(c) issuing the received command to the associated image acquisition device;~~
- ~~(d) receiving, from the image-acquisition device, a response to the issued command, the response comprising an acquired image; and~~
- ~~(e) transmitting to the server over via the network using a presentation-level protocol, the received response.~~

2. (Currently Amended) The method of claim 1 wherein receiving a command directed to an image-acquisition device further step (b) comprises receiving the command sent by the ~~from a~~ server ~~over via~~ a network using a presentation-level protocol selected from the group consisting of ICA, RDP and XWINDOWS, ~~a command directed to an image-acquisition device associated with a client.~~

3. (Currently Amended) The method of claim 1 wherein issuing the received command further step (c) comprises issuing to the image-acquisition device a TWAIN API call based on the received command.

4. (Currently Amended) The method of claim 1 wherein issuing the received command further step (e)-comprises issuing to the image-acquisition device a device driver call based on the received command.

5. (Currently Amended) The method of claim 1 wherein issuing the received command further step (e)-comprises directly issuing to the image-acquisition device a command based on the received command.

6. (Currently Amended) The method of claim 1 wherein issuing the received command further step (e)-comprises issuing to the associated image-acquisition device a command based on the received command, the issued command including an indication to suppress display of a dialog box to a user.

7. (Currently Amended) The method of claim 6 further comprising ~~the step of~~ displaying a second dialog box to a user in lieu of the suppressed dialog box.

8. (Currently Amended) The method of claim 1 further comprising ~~the step of~~ receiving, from a second server via the network, a second command directed to the image-acquisition device associated with the client.

9. (Currently Amended) The method of claim 1 further comprising ~~the step of~~ receiving, from the server via the network, a second command directed to a second image-acquisition device associated with the client.

10. (Currently Amended) The method of claim 1 further comprising ~~the step of~~ receiving, from a second server via the network, a second command directed to a second image-acquisition device associated with the client.

11. (Currently Amended) The method of claim 1 wherein receiving the response to the issued command further step (d)-comprises receiving, from the image-acquisition device, data representing an image.

12. (Currently Amended) The method of claim 11 wherein transmitting to the server further step ~~(e)~~ comprises: ~~(e-1)~~ transmitting to the server compressed image data.

13. (Currently Amended) The method of claim 12 wherein transmitting to the server further step ~~(e)~~ comprises: ~~(e-1)~~ determining that the image data includes ~~comprises~~ more than one bit for each pixel location prior to transmitting the compressed image data to the server.

14. (Currently Amended) The method of claim 13 wherein determining further step ~~(e-2)~~ comprises:

~~(e-2-1)~~ compressing the image data using a first compression algorithm to form first compressed image data;

~~(e-2-2)~~ compressing the image data using a second compression algorithm to form second compressed image data; and

~~(e-2-3)~~ selecting for transmission the smaller of the first compressed image data and the second compressed image data.

15. (Currently Amended) The method of claim 12 further comprising ~~the step of~~ compressing compressed image data during transmission to the server.

receiving, from the image-acquisition device, a response to the issued command, the response comprising an acquired image; and

16. (Currently Amended) The method of claim 1 further comprising, ~~before step (d), the step of:~~ receiving, prior to receiving a response to the issued command, input from a user of the client; and

determining, prior to receiving a response to the issued command, whether to transmit the received input to the server.

17. (Currently Amended) A method for remotely controlling an image acquisition apparatus associated with a client, the method comprising ~~the steps of:~~

receiving, by a server from a client associated with an image acquisition device, via a network, an image acquisition event comprising an image acquired from the image acquisition device;

providing the received event to an application program associated with the event;

receiving, by the server from the application program, a response to the provided event; ~~and~~

transmitting, by the server via the network, the received response to the client;

selecting a proxy application from a plurality of proxy applications executing on the client, the selected proxy application associated with the application program; ~~said proxy application executing on the client; and~~

issuing the received response to the selected proxy application.

18. (Currently Amended) The method of claim 17 wherein providing the received event further step (b) comprises:

~~(b-1)~~ determining, from the received event, an application program associated with the received event; and

~~(b-2)~~ providing the received event to the determined application program.

19. (Currently Amended) The method of claim 17 wherein receiving a response to the provided event further step (e) comprises receiving, via a network, an intercepted TWAIN API call.

20. (Currently Amended) The method of claim 17 further comprising ~~the step of:~~ receiving, from a client via a network, data representing an image acquired by apparatus associated with the client.

21. (Currently Amended) The method of claim 20 further comprising ~~the step of:~~ decompressing the received image acquisition data.

22. (Currently Amended) The method of claim 17 further comprising: receiving an image acquisition event from a second client via the network.

23. (Currently Amended) The method of claim 22 further comprising ~~the step of:~~ providing the image acquisition event received from the second client to a second instance of an application program associated with the event.

24. (Currently Amended) ~~An article of manufacture having embodied thereon~~ A computer-readable program having instructions executable by a processor to control means for controlling image acquisition devices associated with a client, said client communicating with a server using a presentation-level protocol, said client further executing a proxy application associated with a Twain application executing on a server, the computer-readable program article of manufacture comprising:

~~computer-readable program means~~ instructions for receiving, from the server via a network, a command directed to an image acquisition device associated with the client;

instructions for selecting a proxy application from a plurality of proxy applications executing on the associated image-acquisition device;

~~computer-readable program means~~ instructions for issuing the received command to the selected proxy application executing on the associated image-acquisition device;

~~computer-readable program means~~ instructions for receiving, from the image-acquisition device, a response to the issued received command, the response comprising an image; and

~~computer-readable program means~~ instructions for transmitting to the server via the network, the received response.

25. (Currently Amended) The computer-readable program article of manufacture of claim 24 wherein instructions ~~the computer-readable program means~~ for receiving a command directed to an image-acquisition device further comprises: ~~computer-readable program means~~ instructions for receiving, from a server via a network using a protocol selected from the group consisting of ICA, RDP and X-WINDOWS, a command directed to an image-acquisition device associated with a client.

26. (Currently Amended) The computer-readable program article of manufacture of claim 24 wherein instructions ~~the computer-readable program means~~ for issuing the received command to the associated image-acquisition device further comprises: ~~computer-readable program means~~

instructions for issuing to the image-acquisition device a TWAIN API call based on the received command.

27. (Currently Amended) A method for controlling image acquisition devices communicating with a client, the method comprising ~~the steps of~~:

receiving, by a client, a command from a server directed to an image acquisition device communicating with ~~the~~ a client;

selecting a proxy application from a plurality of proxy applications executing on the client and forwarding the received command to the selected proxy application, the selected proxy application forwarding the received command to the image-acquisition device;

issuing a TWAIN API call₁ based on the received command₁ to the image-acquisition device communicating with the client;

receiving, from the image-acquisition device, a response to the issued command, the response comprising an image; and

transmitting, over the network to the server the received response.

28. (Currently Amended) The method of claim 27 wherein issuing a TWAIN API call further step (b) comprises issuing to the image-acquisition device a device driver call based on the received command.

29. (Currently Amended) The method of claim 27 wherein issuing a TWAIN API call further step (b) comprises directly issuing to the image-acquisition device a command based on the received command.

30. (Currently Amended) The method of claim 27 wherein issuing a TWAIN API call further step (b) comprises issuing to the associated image-acquisition device a command based on the received command, the issued command including an indication to suppress display of a dialog box to a user.

31. (Currently Amended) The method of claim 30 further comprising ~~the step of~~ displaying a second dialog box to a user in lieu of the suppressed dialog box.

32. (Currently Amended) The method of claim 27 further comprising ~~the step of~~ receiving, from a second server via the a-network using a presentation-level protocol, a second command directed to the image-acquisition device associated with the client.

33. (Currently Amended) The method of claim 27 further comprising ~~the step of~~ receiving, from the server, a second command directed to a second image-acquisition device associated with the client.

34. (Currently Amended) The method of claim 27 further comprising ~~the step of~~ receiving, from a second server via a network, a second command directed to a second image-acquisition device associated with the client.

35. (Currently Amended) The method of claim 27 wherein receiving a response to the issued command further step (e) comprises receiving, from the image-acquisition device, data representing an image.

36. (Currently Amended) The method of claim 35 wherein transmitting to the server further step (d) comprises:

- ~~(d-1)~~ determining that the image data comprises one bit for each pixel location; and
- ~~(d-2)~~ transmitting to the server, via the a-network using a presentation-level protocol, the image data.

37. (Currently Amended) The method of claim 35 wherein transmitting to the server further step (d) comprises:

- ~~(d-1)~~ determining that the image data comprises more than one bit for each pixel location;
- ~~(d-2)~~ compressing the image data; and
- ~~(d-3)~~ transmitting to the server the compressed image data via the a-network using a presentation-level protocol.

38. (Currently Amended) The method of claim 37 wherein compressing the image data further step (d-2) comprises:

(d-2-1) compressing the image data using a first compression algorithm to form first compressed image data;

(d-2-2) compressing the image data using a second compression algorithm to form second compressed image data; and

(d-2-3) selecting for transmission the smaller of the first compressed image data and the second compressed image data.

39. (Currently Amended) The method of claim 37 further comprising ~~the step of~~ compressing compressed image data during transmission to the server.

40. (Currently Amended) The method of claim 27 further comprising, ~~before step (c), the steps of:~~

receiving, prior to receiving a response to the issued command, input from a user of the client; and

determining, prior to receiving a response to the issued command, whether to transmit the received input to the server.